



PATENT  
Customer No. 22,852  
Attorney Docket No. 5273.90

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
Koichiro YAMADA et al. ) Group Art Unit: Not yet assigned  
Application No.: 10/647,234 ) Examiner: Not yet assigned  
Filed: August 26, 2003 )  
For: PYRIDOPYRIMIDINE OR )  
NAPHTHYRIDINE DERIVATIVE )

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22318-1450

Sir:

**INFORMATION DISCLOSURE STATEMENT**

Enclosed for the consideration of the Examiner in connection with the prosecution of this case is a copy of each of the 18 references set forth on the attached Form PTO-1449. These references except for the Todd article, the Grohe article and DE 2064096 are discussed on pages 1-3 of the Specification. EP 722936 is the equivalent of WO 96/05176 cited on page 2. The above two articles are discussed on page 36. Please refer to these discussions for the relevance of any non-English language documents.

For the relevance of DE 2064 096, please refer to the abstract in English attached to the reference.

The filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made, an admission that the information cited is, or is considered to be, material for patentability, or that no other material information exists. This filing shall not be construed as an admission against interest in any matter.

Applicant respectfully requests consideration of the items listed and requests the Examiner to return a copy of the attached Form PTO-1449 after being marked as being considered by the Examiner.

If there is any fee due in connection with the filing of this statement, please charge such fee to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: December 4, 2003

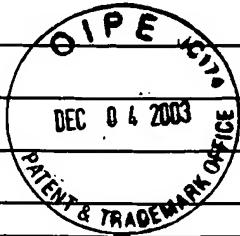
By:

  
Arthur S. Garrett  
Reg. No. 20,338

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## INFORMATION DISCLOSURE CITATION

Atty. Docket No.	5273-90	Serial No.	10/647,234
Applicant	Koichiro YAMADA et al.		
Filing Date	August 26, 20003	Group:	Not yet assigned



## U.S. PATENT DOCUMENTS

Examiner Initial*		Document Number	Issue Date	Name	Class	Sub Class	Filing Date If Appropriate

## FOREIGN PATENT DOCUMENTS

	Document Number	Publication Date	Country	Class	Sub Class	Translation Yes or No
	EP 0722936	24 July 1996	Europe			
	AU 199955977 A1	4 May 2000	Australia			
	DE 2064 096	6 July 1972	Germany			Abstract

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Vermulapalli, S., et al., "Sildenafil relaxes rabbit clitoral corpus cavernosum," Life Sciences, Vol. 67, pp. 23-29 (2000).
	Watkins, C., et al., "Insulin restores neuronal nitric oxide synthase expression and function that is lost in diabetic gastropathy," The Journal of Clinical Investigation, Vol. 106, No. 3, pp. 373-384 (2000).
	Bortolotti, M., et al., "Effects of Sildenafil on Esophageal Motility of Patients with Idiopathic Achalasia," Gastroenterology, Vol. 118, pp. 253-257 (2000).
	Mule F., et al., "Tonic Inhibitory action by nitric oxide on spontaneous mechanical activity in rat proximal colon: involvement of cyclic GMP and apamin-sensitive K <sup>+</sup> channels," British Journal of Pharmacology, Vol. 127, pp. 514-520 (1999).
	Turner, N., et al., "Pulmonary effects of type V cyclic GMP specific phosphodiesterase inhibition in the anesthetized guinea-pig," British Journal of Pharmacology, Vol. 111, pp. 1198-1204 (1994).
	Bakre M., et al., "Expression and Regulation of the cGMP-Binding, cGMP-Specific Phosphodiesterase (PDE5) in Colonic Epithelial Cells: Role in the Induction of Cellular Refractoriness to the Heat-Stable Enterotoxin Peptide," Journal of Cellular Biochemistry, Vol. 77, pp. 159-167 (2000).
	Boolell, M., et al., "A new oral treatment for erectile dysfunction. A Double-blind, placebo controlled crossover study demonstrating dose response with rigiscan and efficacy with outpatient diary," The Journal of Urology, Supplement, Vol. 155, No. 5, p. 495A 739 (1996).

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Terrett, N., et al., "Sildenafil (Viagra™), a potent and selective inhibitor of type 5 cGMP phosphodiesterase with utility for the treatment of male erectile dysfunction," Bioorganic & Medicinal Chemistry Letters, Vol. 6, No. 15, pp. 1819-1824 (1996).
	Ballard, S., et al., "Sildenafil, a potent selective inhibitor of type 5 phosphodiesterase, enhances nitric oxide-dependent relaxation of rabbit corpus cavernosum," British Journal of Pharmacology, Proceedings Supplement, Vol. 118, 153P (1996).
	Goldstein, I., et al., "Oral sildenafil in the treatment of erectile dysfunction," The New England Journal of Medicine, Vol. 338, No. 20, p. 1397-1404 (1998).
	Goldenberg, M., "Safety and Efficacy of Sildenafil Citrate in the Treatment of Male Erectile Dysfunction," Clinical Therapeutics, Vol. 20, No. 6, pp. 1033-1048 (1998).
	Morales, A., et al., "Clinical safety of oral sildenafil citrate (VIAGRA™) in the treatment of erectile dysfunction," International Journal of Impotence Research, Vol. 10, No. 2, pp. 69-73 (1998).
	Estrade, M., et al., "Effect of a cGMP-specific phosphodiesterase inhibitor on retinal function," European Journal of Pharmacology, Vol. 352, pp. 157-163 (1998).
	Todd, C., et al., "Sulfilimines Derived from Sulfanilamide," Journal of American Chemical Society, Vol. 65, pp. 350-355 (1943).
	Grohe, K., et al., "Synthese und Reaktionen von 2,4-Dichlorpyrimidin-5-carbon-saureestern," Liebigs Ann. Chem., pp. 1025-1035 (1973).

Examiner	Date Considered
<p>*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>	
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